



MINOR CHECKLIST: INFORMATION SCIENCE, TECHNOLOGY & THE ARTS

This minor is designed to provide students in all majors experience in dealing with information - deriving it, managing it, and extracting meaning from it!

ISTA Core

ISTA 100: Great Ideas of the Information Age

ISTA 116: Statistical Foundations for the Information Age*

ISTA 130: Computational Thinking and Doing

ISTA 161: Ethics in a Digital World

Upper Division ISTA Coursework (take two)

Total Units __/19

Upper Division Units __/6

A minimum GPA of 2.0
required for this minor.

*requires Math 107 or Math 112

**CSC 110 will double-dip with ISTA 130. You do not
need to take both CSC 110 and ISTA 130!**

You can take ISTA 100, 116, and 161 in ANY order.

**You do NOT have to complete all of 100, 116, and 161 before taking Upper Division courses. You can
take any two UD courses you want, as long as you have the pre-requisites**

ISTA advisor information:

Danny Downes

Undergraduate Academic Advisor

School of Information

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Upper Division ISTA Coursework (Take two)

Note: not all classes are available every semester. Some courses have prerequisite requirements. Students need two Upper Division (300-499) ISTA classes. Categories are noted below only to show the variety of options

Computational Arts

ISTA 301: Computing and the Arts

ISTA 302: Technology of Sound

ISTA 303: Creative Coding

**ISTA 130 or CSC 110 or ECE 175 or PHYS 105A required. Intensive, hands-on course*

ISTA 401: Designing Installations

ISTA 403: Advanced Creative Coding *Not currently offered.*

Human-Computer Interaction

ISTA 329: Introduction to Web Design and Development **Available as of 5/1/2023*

ISTA 352: Images: Past, Present, Future *Not currently offered*

ISTA 416: Introduction to Human-Computer Interaction

ISTA 330: Advanced Web Design

Requires CSC 337 or ISTA 230 (now ISTA 329) and ISTA 130 or CSC 110 or ECE 175 or PHYS 105A

ISTA 495: Special Topics

Special topics courses are offered to allow students to explore specialized topics not covered in the program curriculum. Any specialized topic descriptions will be advertised by the iSchool.

Applied Data Science

ISTA 320: Data Visualization

**Requires ISTA 116 or ESOC 214 or DATA 363 or APCV 302 or consent of instructor*

ISTA 321: Data Mining

**Requires ISTA 116 or ESOC 214 or DATA 363 or APCV 302 or consent of instructor*

ISTA 322: Data Engineering

**Requires ISTA 130 or CSC 110 or ECE 175 or PHYS 105C*

ISTA 331: Principles and Practices of Data Science

**Requires ISTA 131 and 116*

ISTA 429: Applied Cyberinfrastructure Concepts

**No pre-requisites. Second semester programming (CSC 120 or ISTA 131) recommended but not required. Typically offered in Fall.*

ISTA 431: Data Warehousing and Analytics in the Cloud

Programming Foundations

ISTA 350: Programming for Informatics Applications

**Requires ISTA 131 and 116*

Probability and Inference; Machine Learning; Natural Language Processing

ISTA 311: Foundations of Information and Inference

**Requires (ISTA 130 or CSC 110 or ECE 175 or PHYS 105A) and (ISTA 116 or ESOC 214 or DATA 363 or APCV 302)*

ISTA 355: Introduction to Natural Language Processing

**Requires ISTA 130 or CSC 110 or ECE 175 AND ISTA 131 or CSC 120 or consent of instructor. Must not have taken or be simultaneously enrolled in ISTA/LING/CSC 439*

ISTA 421: Introduction to Machine Learning

**Requires (ISTA 130 or CSC 110) and (ISTA 116 or ESOC 214 or DATA 363)*

ISTA 410: Bayesian Modeling

**Requires MATH 223 and MATH 313 and MATH 464 and (ISTA 350 or CSC 345) or ISTA 421 or consent of instructor*

ISTA 450: Artificial Intelligence

**Requires ISTA 350 or CSC 245 or MATH 243 or consent of instructor*

ISTA 455: Applied Natural Language Processing *Not currently offered*

**Requires ISTA 350 or ECE 373 or CSC 335 or CSC 345 or consent of instructor*

ISTA 457: Neural Networks

**Requires ISTA 350 or CSC 345 or ECE 275 or NSCS 344 or consent of instructor*

Virtual Reality and Game Development

ISTA 424: Virtual Reality

**Requires ISTA 350 or CSC 210 or GAME 351*

ISTA 425: Algorithms for Games

**Requires ISTA 350 or CSC 210 or GAME 351*

ISTA 451: Game Development

**Requires ISTA 350 or CSC 210 or GAME 351*